

Claim Amendments

Amend the claims as follows:

1. (currently amended) A method for using advanced image information to increase the quality of an Augmented Reality (AR) image comprising the image from a camera combined with computer-generated graphics to create an AR display, and for using a motorized camera mount for the camera in a tracking system for AR, the method comprising:

capturing an image or view of the real world with a camera having a lens, the camera being moved by a motorized camera mount;

obtaining one or more imaging parameters of the camera and camera lens, the imaging parameters selected from the group consisting of focus, aperture, field of view, exposure time, light sensitivity setting and measured light level;

determining at least the position and orientation of the camera by using a computer to obtain information from the motorized camera mount;

in response to at least the camera orientation received by the computer from the motorized camera mount, using the computer to control the aim of the camera by sending control signals to the motorized camera mount to move the camera to a specified orientation, wherein the control signals cause the motorized camera mount to move the camera to the specified orientation, to thus accomplish a feedback-based camera position control system;

in response to the camera orientation received by the computer from the motorized camera mount and in response to the obtained imaging parameters, using a computer to render a graphical image representing unseen information that corresponds to the known orientation of the camera viewpoint~~one or more objects located in the three dimensional space, and rendering~~

~~said, wherein the unseen information is rendered objects-such that they-it is are-visually~~
consistent with the obtained imaging parameters, ~~position,~~ and the orientation of the camera;

augmenting the image or view of the real world with the computer generated image; and
presenting the augmented image or view to the user.

2. (currently amended) The method of claim 1 wherein the imaging parameters are provided
by the camera ~~electronics~~-via communication to the computer.

3. (original) The method of claim 1 wherein the imaging parameters are obtained by one or
more sensors attached to the camera or lens.

4. (currently amended) The method of claim 1 wherein the imaging parameters are provided
by a combination of the camera ~~electronics~~ and sensors attached to the camera or lens.

5-10. (canceled)

11. (original) The method of claim 1 in which at least one imaging parameter is fixed and
known prior to capturing the image, and at least one imaging parameter is variable and obtained
as it varies.

12. (original) The method of claim 1 in which the determining step comprises using a
motorized camera mount to provide the orientation of the camera, in conjunction with a
previously determined position of the mount.

13. (original) The method of claim 1 in which the determining step comprises using an
independent 3DOF tracking system to determine the orientation of the camera at a known
position.

14. (original) The method of claim 1 in which the determining step comprises using an
independent 6DOF tracking system to determine the position and orientation of the camera.

15. (canceled)